



Tropentag, October 9-11, 2007, Witzenhausen

“Utilisation of diversity in land use systems:
Sustainable and organic approaches to meet human needs”

Sustainable Utilisation of Cassava Plant for Feeding Monogastric Animals

OLUROPO AKINFALA, OPES MATANMI

Obafemi Awolowo University, Animal Science, Nigeria

Abstract

Studies were conducted to evaluate the effect of inclusion of various products and by products obtainable from cassava in a single or composite diet on the growth response of monogastric animals.

Cassava plant meal (CPM) which had about 9% crude protein (CP) comprising unpeeled tubers, leaves and tender-stems was developed. Growth studies which lasted eight weeks with rabbits and pigs, sixteen weeks with cockerels and four weeks with broilers were conducted. In the broiler study, a basal diet of 22% CP was formulated with 50% maize for 153 one week old broiler chicks. The maize was replaced with CPM at rates 0, 25 and 50% of maize. In the study with rabbits, a basal diet of 15% CP was formulated with 45% maize for ten-week old rabbits. The maize was replaced with CPM at rates 0, 50 and 100% of maize. In the study with cockerels, a basal diet of 16% CP was formulated with 45% maize for 150 day old cockerel chicks. The maize was replaced with CPM at rates 0, 50 and 100% of maize. In the study with pigs, a basal diet of 18% CP was formulated with 40% maize sixteen weeks old pigs. The maize was replaced with CPM at rates 0, 50 and 100% of maize.

In the study with broilers, the growth rate decreased and feed to gain ratio deteriorated ($P < 0.05$) as the proportion of the CPM in the diet was increased. In the study with pigs, the daily gain, feed intake and feed/gain ratio were not significantly ($P > 0.05$) influenced by the inclusion of CPM to replace maize. In the study with cockerels, daily gain and feed/gain ratio were significantly ($P < 0.05$) affected when CPM replaced maize in their diets. The inclusion of CPM to replace maize in the diets of growing rabbits resulted in better ($P < 0.05$) daily gain, feed intake and feed/gain ratio.

Findings from the above studies suggest the suitability of CPM to replace maize completely in the diets of pigs and rabbits while partial replace of maize with CPM gave satisfactory performance with broilers and cockerels.

Keywords: Broilers, cassava, cockerels, daily gain, pigs, rabbits